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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,490	11/03/2003	Kou Yamamoto	XA-9971	3241

181 7590 03/08/2007  
MILES & STOCKBRIDGE PC  
1751 PINNACLE DRIVE  
SUITE 500  
MCLEAN, VA 22102-3833

EXAMINER
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SPISICH, GEORGE D

ART UNIT	PAPER NUMBER
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3616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/698,490

Applicant(s)

YAMAMOTO, KOU

Examiner

George D. Spisich

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on December 21, 2006 (RCE filed).
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 21, 2006 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Amended claims 1 and 4 are unclear. The added limitations at the end of independent claims 1 and 4, with respect to the dimensions of the surface portion and the "cross dimension" of the bore are unclear.

New claims 6 and 8 are unclear. It is unclear how the axial length of the surface portions is related to a "cross dimension" of the bore.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP2588338 (cited by Applicant in IDS) in view of JP2002-166835 (cited and applied in the First Office Action by the Examiner).

JP '338 discloses an extendable and contractable steering column apparatus for a vehicle including an outer column (20) through which an inner column (22) is slidably inserted, a lock housing portion (23) formed on the outer column and a locking mechanism that includes a pair of movable pieces (25,27) slidably fitted within a bore (24) formed through the lock housing portion in a vehicle body widthwise direction and a screw rod (31) passing through the pair of movable pieces, and an operation lever (36) disposed at an end portion of the screw rod, wherein the pair of movable pieces is shifted toward each other so as to press the inner column and to shift the pair of movable pieces from each other so as to release the pressure on the inner column in response to swinging of an operating lever. Examiner has interpreted the JP '338 to include all the details of Applicant's invention discussed above, as it is apparent that Applicant's invention is the improvement of the circular bore and circular cross section locking element to a non-circular bore and correspondingly non-circular sliding member (in cross section), which are not present in JP '338. Any limitations Applicant has added

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to the end of claims 1 and 4 and with new claims 6 and 8 appear to be met with JP '338 since the cross sections of the screw, bore and the movable pieces appear to be the same as Applicant's invention.

Although JP '835 (see Figs. 1 and 2) shows the sliding member (11a) sliding up the member (13a) to press against the inner column of the steering arrangement, it is clearly taught that a non-circular (in cross section) sliding member is used to properly engage the inner column. In this reference, the square sliding member obviously prevents undesirable rotation of the sliding member as may be present in the round sliding member of JP '338. Furthermore, the non-circular cross section sliding member of JP '835 ensures the proper alignment of the sliding member such that during assembly, the sliding member is properly installed in the arrangement so as to have the proper contact area alignment with the inner column.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the steering column arrangement of JP '338 by providing a non-circular cross section for the bore and sliding member as taught by JP '835 so as to prevent undesired rotation and ensure proper alignment of the sliding member and the inner column to allow for proper contact. Furthermore, it would be within the knowledge and skill of one of ordinary skill in the art to modify the round cross section members of JP '338 to provide the member with sides so as to prevent undesired rotation and misalignment of the engaging parts in assembly and operation.

With respect to Claim 2 "integrally molded" and Claim 3 "formed of die cast molded aluminum", Examiner points out that the method of forming the device is not

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germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentably weight.

With respect to Claims 4 and 5 and the detail that at least one surface of the polygonal locking member cross section is parallel to an axis of the screw rod and all of the peripheral surfaces forming the cross section are flat and parallel to an axis of the screw rod, Examiner considers that as one of ordinary skill in the art and in view of JP '835 modifies the locking member of JP '338 which is circular in cross section that has sides parallel to the axis of the screw rod, to be polygonal, the sides would also remain parallel to the axis of the screw rod and "all be flat".

With respect to the structure detail that the lock housing is integral with the outer column, the term integral need only be that that are connected, and furthermore, JP '338 shows an integral lock housing and outer column.

With respect to the limitation that the outer column is formed of die cast molded aluminum, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the well known material Aluminum, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

With respect to the limitation in new claim 7, that the cross sections of the bore and the movable pieces are generally triangular, since JP '835 properly discloses the use of a movable member having a side which would inherently prevent the rotation of the movably member as it slides to engage the inner steering column, the use of

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another geometric shape such as triangular cross section members would be within the skill of one of ordinary skill in the art at the time the invention was made and be an obvious variation of the combined references.

### ***Response to Arguments***

With respect to Applicant's argument that the combined references do not show the added limitation of claims 1 and 4, Examiner disagrees and maintains the rejection. Examiner insists that the only difference between the JP '338 (which is Applicant's prior Art Figure 4) is having sides on the movable members that correspondingly engage the sides of the bore. Examiner maintains that it is within the knowledge and skill of one of ordinary skill in the art to modify the circular (in cross section) members and bore to be polygonal (in cross section) so as to prevent undesired rotation and ensure proper alignment and this is also taught by JP '835 since the pieces do not rotate and ensure proper alignment of the engaging portions of the movable members and the steering column. Any limitation added to claims 1 and 4 would be met by the arrangement of JP '338 when modified to have a square (non-circular) or triangular cross sections.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (571) 272-6676. The examiner can normally be reached on Monday-Friday 9:00 to 6:30 except alt. Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

George D. Spisich  
March 3, 2007

  
PAUL N. DICKSON 3/5/07  
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